

Kwa Serial Verb Constructions and the eventive functional sequence

Ryan J. S. Kotowski

ACLC, University of Amsterdam

Enoch O. Aboh

ACLC, University of Amsterdam

Jan Don

ACLC, University of Amsterdam

The Kwa languages (Niger-Congo) of West Africa are well-known for displaying Serial Verb Constructions (SVCs). The literature on SVCs contains various definitions of the phenomenon and recapitulates the general observation that these constructions express fine-grained information about a verbal event and the participants involved therein. This paper seeks to shed light on the structure that underlies Kwa SVCs and how this structure allows for the variation in grammars in the individual Kwa languages. The past syntactic literature on SVCs points towards the need of a more finely articulated functional structure within V. This paper adopts the functional sequence of eventive features proposed by Ramchand (2008, 2015) and proposes that the Kwa languages employ SVCs to spell out individual features within this functional sequence thus allowing them to express fine-grained information about a verbal event.

1 Prelude

The Kwa languages (Niger-Congo) of West African are well-known for displaying multiple verb constructions commonly referred to as Serial Verb Constructions (hereafter SVCs) (cf. Christaller 1875; Stewart 1963). In his description of Ewegbe (a Western Gbe language of the Kwa family), Westermann (1930: 126) states:

A peculiarity of Ewe is that we often find a row of verbs one after the other. The chief feature of this are that all the verbs stand next to each other without being connected, that all have the same tense or mood, and that in the event of their having a common subject and object, these

stand with the first, the others remaining bare: should a conjunction stand between the two verbs, the subject and object must be repeated.

The literature on SVCs contains various definitions of the phenomenon (e.g., Baker 1989; Collins 1997; Aikhenvald & Dixon 2006; Haspelmath 2016; Veenstra & Muysken 2017; and Aikhenvald 2018) and most studies recapitulate the properties in Westermann's descriptions, which are found to various degrees in different languages across the world. One such often mentioned properties the monoclausal nature of these constructions, which appear to refer to a single event. The example in (1) from Gungbe (an Eastern Gbe language of the Kwa family) illustrates Westermann's description.

- (1) Súrù hén mán cé fió. [Gungbe]
 Suru hold vegetable.soup my burn
 'Suru caused my vegetable soup to burn.'

The combination of the verbs *hén* 'hold' and *fió* 'burn' does not denote two separate events (i.e., a holding event following by a burning event). The semantics of this sentence suggests there is no holding event at all. Instead, the *hén* X *fió* 'hold X burn' event is interpreted as a causative construction in which the agent caused the vegetable soup to burn. In the description to follow, we will refer to the linearly first verb as V1, and the second one as V2, and so on. Another telling example of an SVC is given in (2).

- (2) Súrù zé zò-kèkè cè yì sà dǔ. [Gungbe]
 Suru take fire-bike 1SG.POSS go sell eat
 'Suru has gone to sell my motorbike (for his own profit).'

If SVCs involved a succession of events, (2) could be interpreted as reporting a series of events in which the agent took a motorbike, went to some selling place, and sold it. However, such an interpretation would crash because of the verb *dǔ* 'eat'. Instead, the provided interpretation shows that the whole sentence is interpreted as one event in which some agent takes the initiative to sell a motorbike that is not his. As such, the four verbs involved in (2) are interpreted more as a complex structure in which each verb provides bits of information about the event, including the arguments, the speaker's perspective, as well as how the event was carried out. Facts such as these have led several authors to compare such constructions to complex predicates of which a classical example is given in (3). The only difference between (3) and the Gungbe examples in (1) and (2) is that the former involves an adjective predicate combine with a verbal one.

(3) Bill *hammered* the metal *flat*.

In (3) the verb *hammered* expresses the event simultaneously with the manner by which the event was carried out (including the instrument used), while *flat* expresses the result of that event. A similar example in Gungbe could be the sentence in (4) in which the verb *zé* ‘take’ introduces the instruments (thereby indicating the manner) while *gbá* ‘break’ expresses the result.

(4) Súrù zé màrtó gbá flécé lò. [Gungbe]
 Suru take hammer break window DET
 ‘Suru broke the window with a hammer (or by means of a hammer).’

We will not dwell any further on such parallels with complex predicates as described in the literature. Instead, we refer the interested reader to the relevant references (e.g., Baker 1989; Neeleman 1994, and much related work). We return to the analysis of SVCs proper in Sections 3 and 4.

In the context of the current discussion, we retain the following generalizations adapted from Ameka’s (2006: 128–129) description of SVCs in the Gbe languages and more generally in Kwa, to wit:

- The VPs are construed within the same temporal frame and tend to share the same mood.
- The VPs can be formally marked for the same or different aspects.
- The VPs fall within the scope of a single negation marker. SVCs containing distinct negative markers on the verb give rise to negative concord.
- There is a unique syntactic subject for all VPs that is expressed only once before VP1.
- There are no conjunction or subordination markers between the VPs.

The Kwa languages differ as to the extent to which they display these properties or how these interact with other language-specific rules regulating the expression of TMA (including negation) or the arguments and their predicates (cf. Shluinsky 2017). In terms of TMA marking, Shluinsky discusses three variations:

- (i) Symmetric: both verbs take the same marker
- (ii) Zero: where the linearly first verb takes a marker, but the second one does not.
- (iii) Consecutive: where the second verb takes on second, distinct marker that does not contribute to the overall TMA value of the construction.

The examples in (5a–c) illustrate (i–iii) above, respectively (taken from Shluinsky 2017: 350).¹

- (5) a. Bà boè dzè kē ʃe [Attié]
 3PL come.PRF give.PRF 3SG yam
 ‘They brought him a yam.’
- b. A-bobi-e o-to-kle fiε a-tawalibi-wɔ [Logba]
 CL-moon-DEF SG-HAB-shine exceed CL-star-PL
 ‘The moon shines brighter than stars.’²
- c. Kofi bε-to bukuu a-ma Ama [Twi]
 Kofi FUT-buy book TMA-give Ama
 ‘Kofi will buy a book for Ama.’

Bearing these general characteristics of SVCs in mind, two research questions are of interest in this paper:

- (i) What structural make-up underlies SVCs?
- (ii) What possible grammars can arise out of this underlying structure?

To address these research questions, the present investigation will focus on two verbs in Kwa, which in their citation forms can be translated as *take* and *give*. These verbs play a role in specifying the way in which a single event is carried out rather than indicating a presence of separate ‘taking’ or ‘giving’ events. As we will defend in later sections, the presence of these two sorts of SVCs implies that the verbal domain requires a more fine-grained structure beyond V and little *v* (i.e., the projections that introduce the internal and external arguments, respectively).

In regard to the second research question, we must acknowledge the wealth of literature on SVCs suggesting that they serve, cross-linguistically, as springboards for the development of argument-marking elements (e.g., adpositions and case markers). This seems intuitively correct if we compare (4), in which the verb *zé* introduces an instrument, to the English prepositional phrase *with a hammer*. Such parallels have led some authors to argue that certain verbs

¹ The morphosyntactic microvariation of TMA observed between the various Kwa languages are discussed here for the reader’s reference and will not be discussed further in this paper. Although examples from multiple Kwa languages are discussed, they are comparable in the fact that they all exhibit serial verb constructions.

² We have retained the translation given by Shluinsky, however, we propose that the translation ‘The moon *overshines* the stars’ to be a more faithful translation of this comparative SVC which, in a language such as English, is accomplished through the use of inflection.

in SVCs grammaticalize into adpositions or case affixes. Such a grammaticalization path has been argued for based on the Kwa language, as in, for example, work by Heine et al. (1991) and Lord (1993).

A study of the individual Kwa languages shows that these verbs can fulfil the functions of full lexical verbs with the basic meanings *take* and *give* or as argument introducing verbs in SVCs. In the case of *take*-series, the verb may introduce an instrument as in (4) or a lative DP. In the case of *give*-series, the verb may introduce a recipient/benefactive or dative DP. Interestingly, while *take* occurs as V1 in instrument series, *give* occurs as V2 thus indicating that these two verb types encode different structural positions as argument introducers.

The following sections address the two research questions listed above. Section 2 provides a bird's eye view of relevant serializing patterns found in Kwa with a focus on *take*- and *give*-series. In the course of describing the data, we also mention previous analyses that are relevant to the discussion. Section 3 continues the discussion on literature addressing the syntactic structure of SVCs. In particular, we highlight how the literature raises the necessity of having a functional layer within V to account for the functional V1 found in *take*-series. Importantly, the existence of *give*-series suggests that V2 can also take on a functional role requiring a reformulation of the underlying syntactic structure. In Section 4, we apply the functional sequence of eventive features proposed by Ramchand (2008, 2015) and present our proposal for the Kwa data in Section 2. Importantly, we discuss how this allows the Kwa languages to accommodate grammars in which *take* and *give* are ambiguous as to their verbal or adpositional qualities. Section 5 concludes this paper with some remarks on directions for future research into SVCs.

2 The Kwa data

This section provides an overview of the Kwa morphemes, which in their purely verbal forms, can be translated as *take* and *give*. These items can take on different roles, namely:

- (i) as a main predicate in a clause;
- (ii) combined with another verb in an SVC;
- (iii) as an argument introducer (i.e., comparable to an adposition or case affix).

The individual Kwa languages differ in the extent to which these items fulfil all three functions. In showing relevant examples of this behavior across Kwa, we do not intend to mean that these pieces of evidence can be grouped together as converging evidence for a grammaticalization process for the development of

adpositions in a single language. From our perspective, we regard these language-specific facts as a brief catalogue of the varying properties of Kwa clause structure that a learner of these languages must unravel during acquisition. Section 2.1 discusses *take*-series and Section 2.2 discusses *give*-series. Section 2.3 offers an interim summary.

2.1 Take-series

When used as a main predicate in a clause, *take* expresses a single event of taking an object as illustrated by the example in (6a). In this usage, this verb only selects ‘takeable’ entities as internal arguments, hence the ungrammatical example (6b), which has an abstract DP.

- (6) a. Súrù zé zò-kèkè cè. [Gungbe]
 Suru take fire-bike 1SG.POSS
 ‘Suru took my motorbike.’
- b.* Súrù zé wánnýínnyín cè.
 Suru take love 1SG.POSS
 ‘Suru took my love.’

In an SVC, *take* can combine with different types of verbs to encode change of location or manner (cf. Lefebvre & Brousseau 2002). In such constructions, *take* can be followed by DPs referring to concrete and abstract referents. This is, for example, the case in the instrumental series in (4) repeated below as (7a), for convenience. In example (7b), *take* combines with a motion verb and the series indicates a change of location. It is arguable that *take* discharges lative case (i.e., indicating motion towards or into a goal) in such constructions. The example in (8c) instantiates an expression of manner. Note that in this example, *take* can be followed by the DP *wánnýínnyín* ‘love’, unlike in (7b). The contrast between (7b) and (8c) suggests that *take* fulfils some grammatical role (e.g., argument marking) in verb sequences and, consequentially, does not have the same selectional requirements when used as a main predicate.

- (7) a. Súrù zé màrtó gbà flécé lɔ. [Gungbe]
 Suru take hammer break window DET
 ‘Suru broke the window with a hammer (by means of a hammer).’
- b. Súrù zé màrtó bíó xò mè.
 Suru take hammer enter room INSIDE
 ‘Suru took a hammer into the room.’
 ‘Suru entered the room with a hammer.’

- c. Súrù zé wánnýínnyín yí wéxòmèví lè.
 Suru take love receive pupil PL
 ‘Suru received the pupils with love.’

The idea that *take* expresses grammatical functions in an SVC appears further supported by the fact that in some series it is not immediately obvious what lexical import *take* would bring. Consider the following pair in (8) from Gungbe (see also Lewis (1992) for similar data in Gengbe, a Western Gbe language).

- (8) a. Dótù kàn wémá ló. [Gungbe]
 Dotu write paper DET
 ‘Dotu wrote the letter.’
 b. Dótù zé wémá ló kàn.
 Dotu take paper DET write
 ‘Dotu took it upon himself to write the letter.’

Example (8a) indicates that the verb *kàn* ‘write’ can license an internal argument on its own, as a garden variety transitive verb. This, however, seems irreconcilable with (8b) in which *take* seems to be doing the same thing even though the interpretation is different from a complex event of taking a letter and writing it. Instead, the addition of *take* in such series does not seem much related to its function as argument introducer or case-assigner to the shared DP-object *wémá ló* ‘the letter’, but rather to the expression of the manner/condition in which the event was carried out. In Gungbe, (8b) would be felicitous in a context in which either no one volunteered to write the letter or *Dotu* decided to write it, even though he was not the legitimate or intended person to do so.

In Section 2.2, we overview some relevant properties of *give*-SVCs. These constructions introduce a recipient/benefactive or dative DP, but unlike *take*-SVCs in which *take* realize V1, this morpheme realizes V2 in SVCs.

2.2 Give-series

Similar to *take* (see Section 2.1), *give* can occur on its own as the main predicate of a sentence. In such contexts, most Kwa languages exhibit a double object, as illustrated by the Akan and Ewegbe examples in (9a) and (9b), respectively.

- (9) a. Màmé nó má-á m-bòfrá nó èdzián.
 women DEF give-COMPL PL child DEF food
 ‘The woman gave the children food.’ [Akan, Osam 2003: 123]

- b. Me na ga Kofi. [Ewegbe, Heine et al. 1991: 1]
 1SG give money Kofi
 ‘I gave Kofi money.’

In *give*-SVCs, the interpretation of the combined verbs is typically ambiguous between lexical *give* (i.e., donation of an object to someone as in 12) or expression of a recipient/benefactive (i.e., someone who receives or benefits from the actions of the agent). Disentangling these two interpretations is not often straightforward, because the felicitous meaning depends on the context, as well as the verb with which *give* is combined. This is illustrated by the Gungbe example in (10). Under appropriate circumstances, this sentence can have the meaning in (a) or (b).

- (10) É zé távó lò ná Dóná. [Gungbe]
 3SG take table DET give Dona
 a. ‘He took the table for Dona.’
 b. ‘He took the table to Dona.’

The Abé example in (11) further confirms this ambiguity.

- (11) Apy di džumâ lo ši [Abé, Shluinsky, 2017: 374]
 Apy do work give father
 ‘Apy did work for his father.’

Even though Shluinsky provides a single interpretation of (11), it is reasonable to interpret this string as being vague as to whether *Apy*’s father is the direct beneficiary of *Apy*’s work or rather that *Apy* did some work on behalf of his father. That the context plays an important role in distinguishing between these different usages of *give* is further supported by (12). In this example, we observe that the agent prepares her/himself for an exam. In this example, therefore, *give* is comparable to the English *for* in the interpretation.

- (12) Me wɔ dó vévié ná dodópkò lá.
 1SG do hard work give exam DEF
 ‘I worked hard for the exam.’ [Ewegbe, Heine et al. 1991: 1]

In a way comparable to *take*-SVCs present in (6), lexical *give* displays selection restrictions which are not found in *give*-SVCs in which V2 appears to have an adpositional usage. Consider the following examples in (13) from Gungbe.

- (13) a. *Lúkù ná àwàjìè Súrù. [Gungbe]
 Luku give joy Suru
 ‘Luke gave Suru joy.’

- b. Lúkù dó àwàjìè ná Súrù.
 Luke plant joy give Suru
 ‘Luke made Suru happy.’

It is noteworthy that (13a) is ungrammatical in Gungbe even though not in English. In this sentence, lexical *give* cannot select for an abstract theme such as *joy*. Therefore, the benefactive reading is blocked unlike in English. In the SVC example in (13b), however, the combination of the verb *dó* ‘plant’ and *ná* ‘give’ allows for a locative meaning (lit. ‘Luke caused joy to be at Suru’), which can entail benefactive. Similar restrictions on *give*-SVCs have been discussed in the literature (cf. Aikhenvald 2018; Couvée & Pfau 2018, and references therein).

Several cross-linguistic examples in the literature indicate that Kwa languages involve *take*- and *give*-series in which the sole function of these verbs appears to be licensing of new arguments. We therefore reach the characterization that both the positions V1 and V2 can host a functional verb in SVCs.

2.3 *Intermezzo*

The Kwa data discussed thus far reveal two important implications for the research questions of this paper, repeated below.

- (i) What structural make-up underlies SVCs?
- (ii) What possible grammars can arise out of this underlying structure?

With regard to (i), it appears that SVCs imply a fine-grained event structure such that the verbs combined in the series express different facets of the event including internal aspect of the event, causality, manner, as well as subject-oriented versus object-oriented actions. Accordingly, verb series appear to encode event properties that are readily expressed by functional morphology (e.g., case or TMA) in other languages. This leads us to research question (ii). Indeed, the variation observed across Kwa, as well as the various meanings associated with certain SVCs indicate that Kwa learners presumably entertain competing learning hypotheses, some of which are compatible with certain SVCs being reanalyzed as a combination of a verb and an adposition.

In order to address these questions, the following section focuses on the internal structure of SVCs. We adopt a complementation approach to SVCs in which the verbs in a series belong to a single functional sequence (e.g., Aboh 2009). Adopting Ramchand’s (2008, 2015) approach to event structure, we further argue that *take* and *give* identify a sub-stretch of the eventive features in V.

3 The necessity of a decomposed V

In this section, we overview relevant literature pertaining to the structure of SVCs. Building on this literature, we offer an analysis of SVC structure that accounts for the data discussed in Section 2 and allows us to understand what grammars can be possibly constructed by Kwa learners. In Section 3.1, we briefly address the debate on object sharing in SVCs before discussing the implications of Aboh's (2009) account of *take*-series *vis-à-vis* *give*-series. In Section 3.2, we discuss literature addressing double object and to-dative constructions in order to shed light on the underlying structure of *give* series. In Section 3.3, we overview the functional sequence of eventive feature proposed in Ramchand (2008, 2015).

3.1 Demarcating a functional layer within V

Several authors have observed that verbs in a series may share the same internal argument (e.g., Baker 1989; Agbedor 1994; Da Cruz 1995; Collins 1997, 2002). Baker (1989), who was the first to formalize this observation in syntax, argued for a serializing parameter that permits double-headed VPs in which the two heads both theta-mark a shared object. A direct consequence of Baker's argument sharing hypothesis was that such double-headed VPs were ternary branching (see Agbedor (1994) for a variant of the double-headed VP). Collins (1997) further refined Baker's proposal, which became untenable under binary structure required by X-bar theory. In terms of Collins (1997), Baker's argument sharing hypothesis can be understood in terms of a control structure involving two embedded VPs in which the lower V2, heading VP2, theta-marks an empty category (i.e., *pro*) that is bound by the object of the higher VP1 headed by V1. While Collins solved the technical issues related to ternary branching *à la* Baker, it still leaves open the controversial claim that argument sharing is a defining feature of SVCs. Since the beginning of studies on SVCs, there has been a wealth of data indicating that many series violate the argument sharing hypothesis. The example in (14) involves an unergative V1 followed by a transitive V2. While the two verbs share the same subject, only V2 takes an object.

- (14) Wekplòmètó ló lón xé távó jí. [Gungbe]
 teacher DET jump climb table on
 'The teacher jumped on top of the table.'

Aboh (2009) presents cogent arguments indicating that in Gungbe series V1 typically fails to assign any theta-role to the DP immediately following it. Under his view, V1 does not introduce any additional thematic role that would require marking an internal argument. Using *take* and similar series as prototypical examples, he argues that V1 rather expresses information associated with TMA,

manner, or causativity that specify the nature of the event carried out by V2 (see Aboh (2009) and references therein for a detailed discussion). What matters for our current discussion is Aboh's (2009) claim that in SVCs, V1 belongs to the functional sequence (similarly to TMA, event-related modifiers, or expression of cause) that represents the extended projection of the main predicate (i.e., V2 under Grimshaw 1991). Aboh's analysis is part of a larger effort in understanding restructuring structures involving functional verbs. While we will pursue this general observation, one issue requires closer examination.

As evidenced by the instrumental and lative series in (7) and the *give*-series discussed in Section 2.2, SVCs can accommodate multiple DP arguments. The question that arises is how these DPs are licensed (i.e., theta-marked or case-marked) if V1 has no theta-role and only functions as a TMA-like element. Aboh (2009) addresses these cases by assuming that the main predicate V2 introduces all arguments, while V1 can introduce the causer in causative series. In this regard, an instrument series such as (7a), repeated below as (15), can be interpreted as indicated.

- (15) Súrù zé màrtó gbà flécé ló. [Gungbe]
 Suru take hammer break window DET
 'Suru causes the window to break (by means of a hammer).'

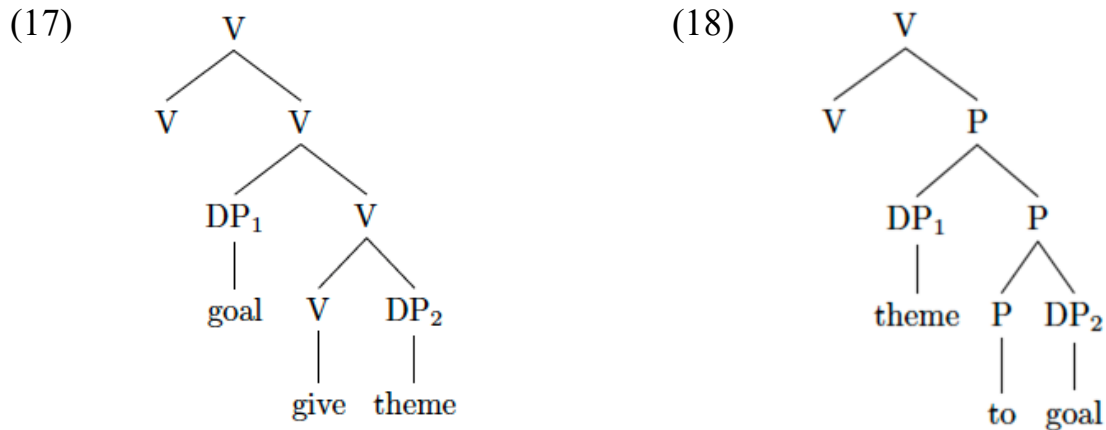
Whilst this analysis in terms of a functional V1 may extend to some relevant cases, *give*-SVCs suggest that the analysis must be refined. In these series it appears that it is V2 that takes a functional role, marking a recipient and or benefactive DP. We therefore reach the characterization that both V1 and V2 can be functional depending on the type of SVC. In order to further understand the structure of SVCs and how to integrate the facts about *give*-series, we first need to revisit a standard analysis of benefactive constructions involving lexical *give* (i.e., double objects and *to*-dative constructions in English). To this end, Section 3.2 takes up Hale and Keyser's (2002) account of argument structure in double objects and *to*-dative constructions.

3.2 Double object constructions and *give*-series

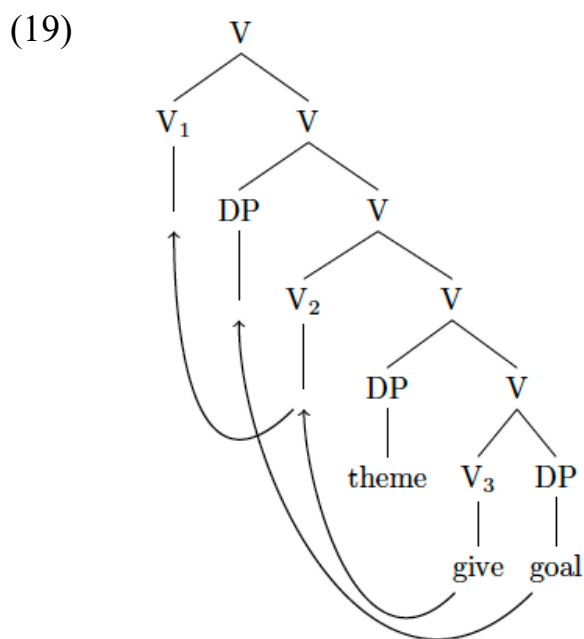
Hale & Keyser (2002) discuss the structural differences between double object and *to*-dative constructions examples of which are given under (19a) and (19b), respectively (adapted from Hale & Keyser 2002: 163).

- (16) a. ...give the baby its bottle.
 b. ...give the bottle to the baby.

The structures of (16a) and (16b) differ in that the former seems to involve two direct objects whilst the latter involves a single direct object and an indirect object (i.e., an adjunct). The surface structures of (16a) and (16b) given in Hale & Keyser (2002: 161–162) are illustrated in (17) and (18), respectively.



Hale and Keyser state that the surface configuration of GOAL-THEME in double object constructions is derived from an underlying *to*-dative structure which exhibits a THEME-GOAL configuration. The authors propose that the surface structure of double object constructions is derived via head movement whereby the verb *give* raises to the upper V1 to eliminate that empty head. The goal DP then raises to a specifier position in V2 in order to receive accusative case from *give* thus yielding the GOAL-THEME order. This derivation is illustrated in (19).



Hale and Keyser discuss the nature of the upper V in regard to causation, agency, volition, and instrumentality. In terms of double object constructions, they claim

the upper V indicates pure causation whereas in *to*-datives the upper V can take an agentive subject. Here similarities can be drawn with V1 as discussed in Aboh (2009). The difference is that in the case of *take*-series, V1 houses an overt verb unlike in double object and *to*-dative constructions that involve lexical *give*, which raises via head movement to V1. If we relate this account of double object constructions to *give*-series in the Kwa languages, it seems that, in the latter case, upper V houses a lexical verb thus preventing the upwards movement of *give*. As such, based on the evidence from SVC data, it seems upper and lower V can house both lexical and functional elements. As evidenced by the appearance of multiple Vs in the syntactic structure in the literature discussed above, it seems, however, that what is labelled a V is much more finely articulated from a functional perspective. In Section 3.3 below, we introduce the functional sequence of eventive features proposed in Ramchand (2008, 2015). In particular, we highlight two key verb classes discussed therein, which will be pertinent to our reframing of *take*- and *give*-series in Section 4.

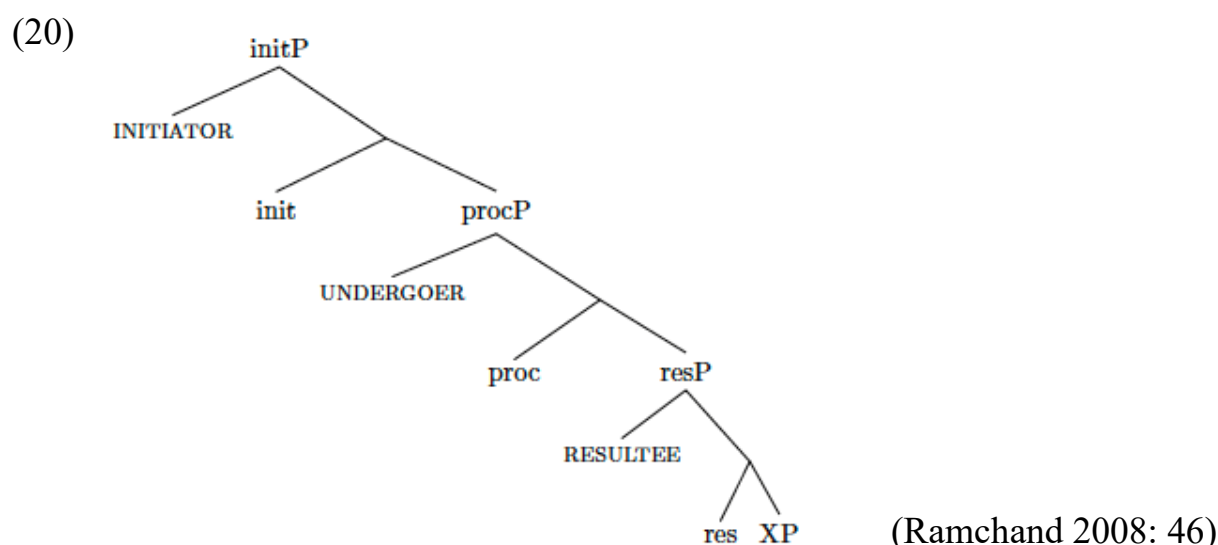
3.3 *Decomposing V*

Ramchand (2008) formulates her account of functional sequence of eventive features in V assuming that any verbal event includes an initiating subevent linked to the notion of causality. This subevent involves a specific DP argument (i.e., the INITIATOR). In Ramchand's terms, this participant fulfils the function of what is traditionally characterized as an external argument. The thematic role commonly associated with the external subject is that of agent. Ramchand (2015) asserts that agenthood is a 'crude' general concept covering a diverse array of semantic roles (i.e., canonical agent, inanimate cause, instrument, and moving object). Ramchand argues that the INITIATOR, the participant that initiates or causes the event expressed by the verb, thus encapsulates all of the traditional thematic roles an external argument can take on. Here, one can draw parallels between Ramchand's notion of initiation with the analyses of V1 in Hale & Keyser (2002) or in Aboh (2009) who proposes that V1 is the functional element that introduces the external argument in some causative SVCs.

Ramchand further proposes that what is labelled as the internal argument can be divided into two different thematic roles associated with two different subevents. After the initiating subevent, the second subevent (traditionally associated with the internal argument functioning as object) measures out the action caused by the INITIATOR. The semantic role that Ramchand gives to this participant (usually denoted by a DP) is UNDERGOER. A key trait of the UNDERGOER is that it relates to a non-telic event (i.e., one that does not have an end point). Ramchand proposes a third subevent that is associated with a telic event (i.e., one that has an end point) and whose participant, the RESULTEE, experiences or undergoes a change of state.

3.3.1 Subevents in the functional sequence

The splitting up of V itself into V and little *v* has been well-established in the literature since Larson (1988), Chomsky (1995), and much related work. The motivation for a little *v* projection stems from the need for a functional head that assigns a theta-role to the external argument. Ramchand (2008: 64) characterizes little *v* as an analogue to her *init* projection in that both function as an introducer of an external argument-like DP. As discussed above, the decomposition of syntactic categories follows a long trend in the cartographic literature. Under these approaches, categories previously believed to be monolithic entities in the syntax are reanalyzed as having a more complex and finely grained structure. As discussed below the little *v* + V sequence does not encapsulate the semantic differences between the verb types discussed in Section 3.4.1. Ramchand unifies the three semantic subevents and participants discussed above into the structure illustrated in (20). We adopt this structure as an alternative to the traditional little *v* + V sequence on the grounds that this structure only introduces two arguments, whilst the SVC data clearly illustrate the occurrence of multiple arguments within a single verbal event.



In this structure, the *init*[iation]P introduces initiating or causal event and licenses the INITIATOR DP, the *proc*[ess]P specifies the nature of the change or process and licenses the UNDERGOER DP, and the *res*[ult]P provides telicity to the event and licenses the RESULTEE DP. An important theoretical note to make at this point is that Ramchand (2015) argues for non-terminal lexicalization in which a verb or DP participants is not inserted under a single terminal node but can spell out multiple eventive features (in the case of verbs) or multiple participant projections (in the case of nouns). A more traditional analysis would involve the base-generation of an element in the first merge position followed by subsequent

internal merge in a higher position in the structure. It is beyond the scope of this paper to address the theoretical validity of either approach; however, we adopt Ramchand's terminology throughout our reframing of the Kwa data in Section 4.

3.4 Two verb classes

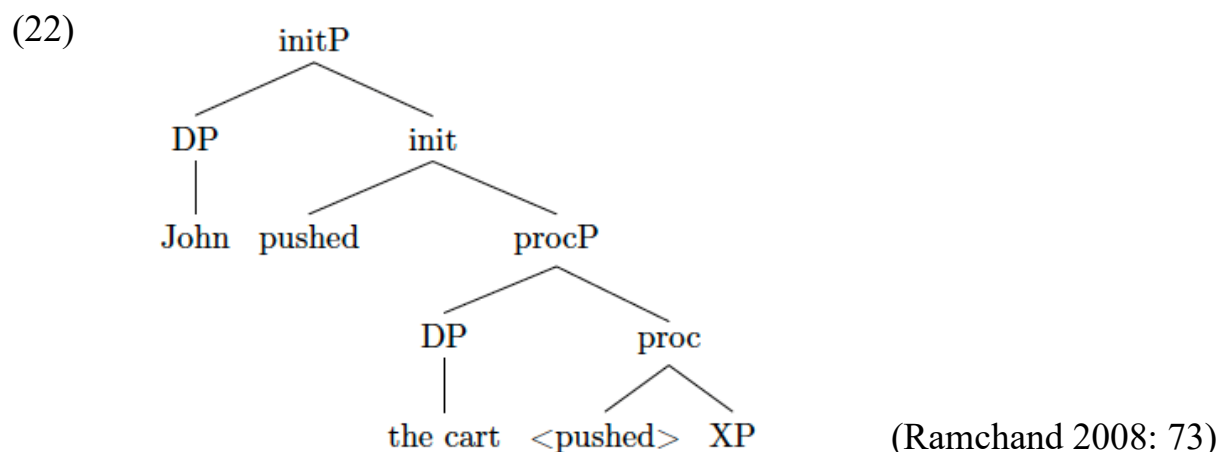
Ramchand proposes a series of verb classes to account for traditional verb classifications such as transitive, intransitive, and causatives. In this section, we review two verb classes that we will argue account for the *take*- and *give*-series discussed in Section 2, namely: INITIATION-PROCESS and INITIATION-PROCESS-RESULT verbs. In the following subsections, we discuss each verb class in turn.

3.5 Initiation-process verbs

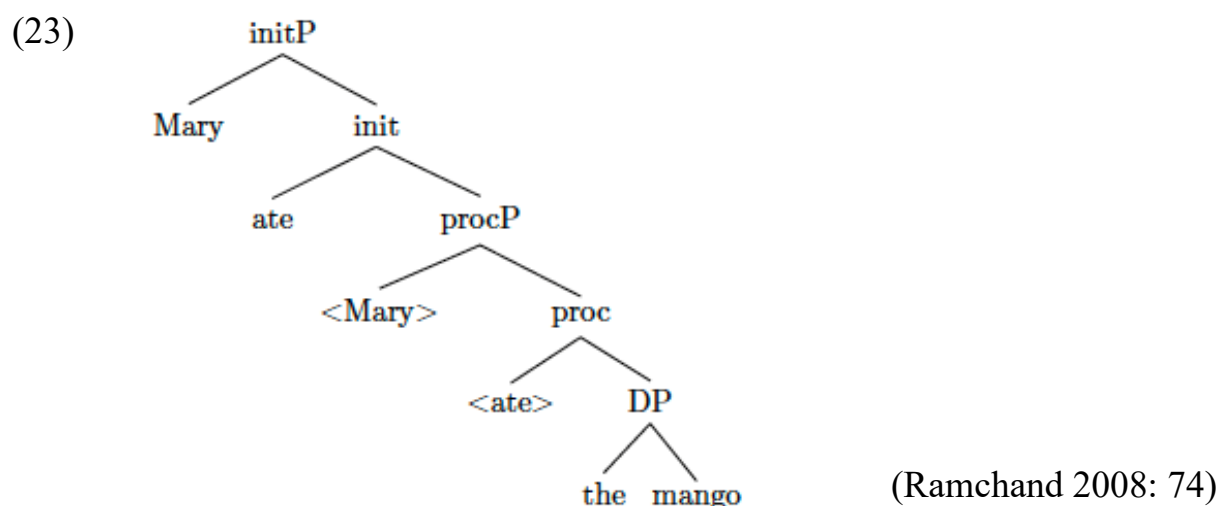
Ramchand divides INITIATION-PROCESS verbs into two subcategories where, in one, the INITIATOR and UNDERGOER DPs are distinct and, in the other, the two DPs represent both participants. Consider the two sentences given in (21) taken from Ramchand (2008: 73–74).

- (21) a. John pushed the cart.
b. Mary ate the mango.

As both sentences are transitive and require two arguments, the *init* and *proc* features must be present in the structure. However, the roles the DPs play in the eventive structure differ. In the case of (21a), a distinct INITIATOR (i.e., *John*) instigates a process undergone by another participants (i.e., *the cart*). As such, each participant projection of the two eventive features are filled by distinct DPs and both eventive features are identified by the verb *pushed* as illustrated in (22). The semantics implied by this structure is that *John* initiated a process that caused a cart to undergo movement or to be pushed.



The semantics for (21b) is different because, in this case, *Mary* initiates the act of eating and thus acts as the INITIATOR of the event. As *Mary* is a sentient agent, she simultaneously experiences the process of eating and is therefore also the UNDERGOER of the event. Ramchand proposes that the *the mango* is a rhematic path within procP, thus yielding the structure in (23). The semantics that this structure implies is that *Mary* initiates putting herself in an eating process that involves a mango.



Consider a case with the verb *eat* in which the UNDERGOER is identified by a distinct DP³ such as in (24).

(24) *Mary lets John eat the mango.*

The interpretation of this sentence is not too different from a *take*-SVC in that *let* does not introduce a distinct event of letting much the same as *take* does not introduce a separate event of taking. Rather, the verb serves to introduce *Mary* as a participant who allows *John* to experience the process of eating a mango.

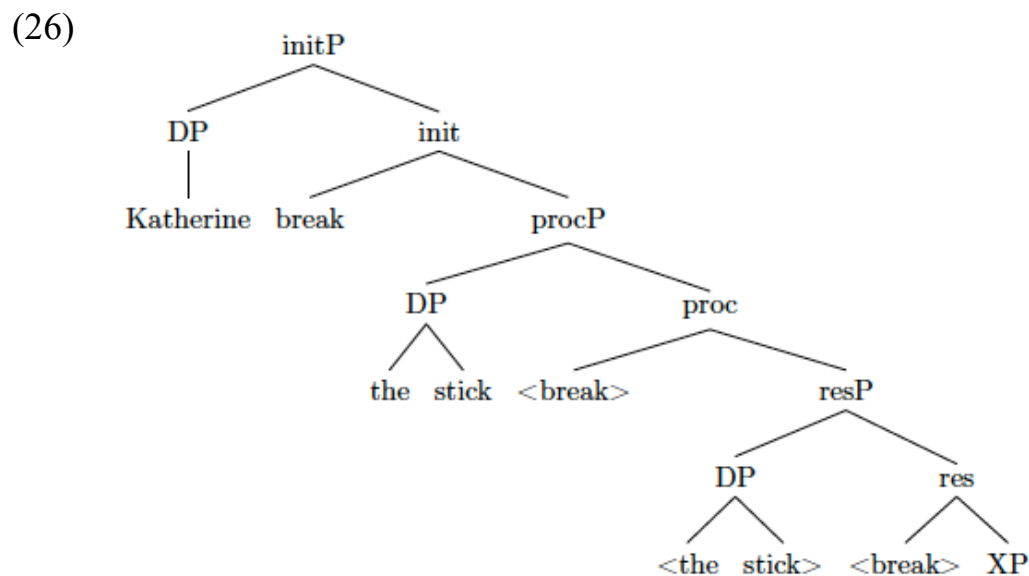
3.5.1 Initiation-process-result verbs

Ramchand proposes that the INITIATOR-PROCESS-RESULT verb class accounts for transitive verbs such as *break*, *throw*, *find*, and *enter* as well as double object and *to*-dative constructions (amongst other verb categories that are not relevant to our discussion). Let us take the example given in (25) from Ramchand (2008: 83).

³ Consider if *the mango* did, indeed, identify UNDERGOER. The semantics implied in (21b), in this case, would be that *Mary* initiated an event that caused a mango to eat. This is, of course, intuitively bizarre. Nevertheless, this ‘bizarre’ example illustrates the need for an articulated verbal event structure that bears out the nuanced array of participants in an event.

(25) Katherine broke the stick.

In this example, the verb *break* encodes an initiating subevent, caused by the external argument DP (i.e., *Katherine*), and a final result state whereby the internal argument DP (i.e., *the stick*) becomes broken. Ramchand states that for this sort of verb, the internal argument DP identifies both UNDERGOER and RESULTEE and that the verb identifies all three eventive features thus yielding the structure in (26)



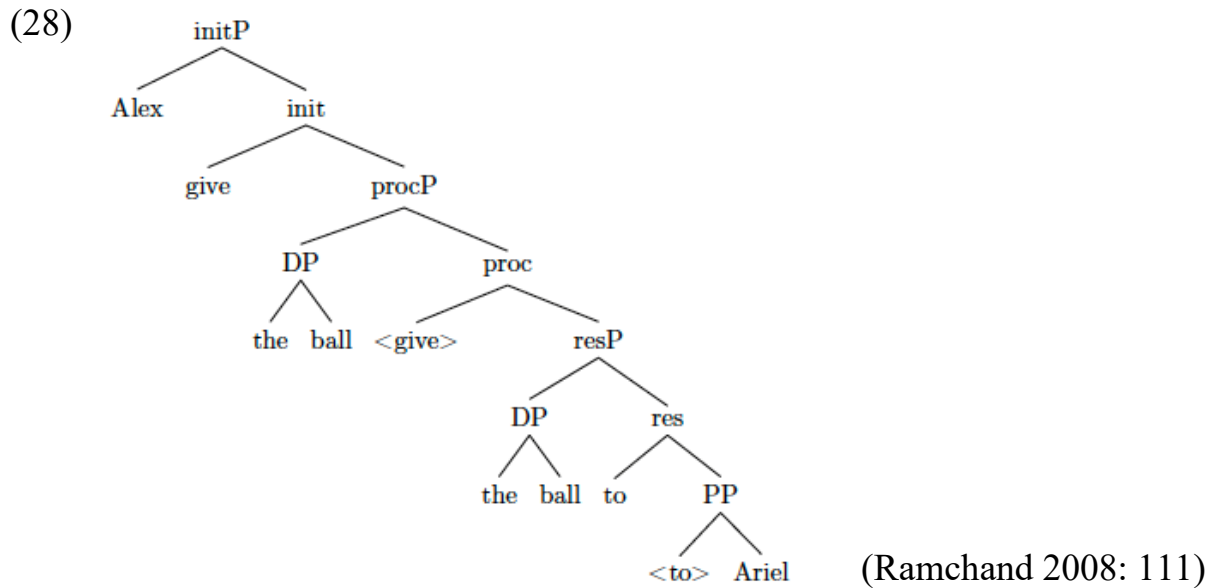
(Ramchand 2008: 83)

The semantics implied by this structure is that *Katherine* has initiated a breaking process that is undergone by *the stick* and which results in a change of state (i.e., *the stick* being broken). *The stick* would not be a thematic path because the process of breaking directly involves the stick as a participant (i.e., it is *the stick* that is breaking) whereas in (21b) the action of eating is caused and experienced directly by *Mary* (i.e., it is *Mary* who is eating).

Ramchand uses the same INITIATOR-PROCESS-RESULT verb class to account for *to*-dative and double object constructions. Consider the *to*-dative construction given in (27) from Ramchand (2008: 111).

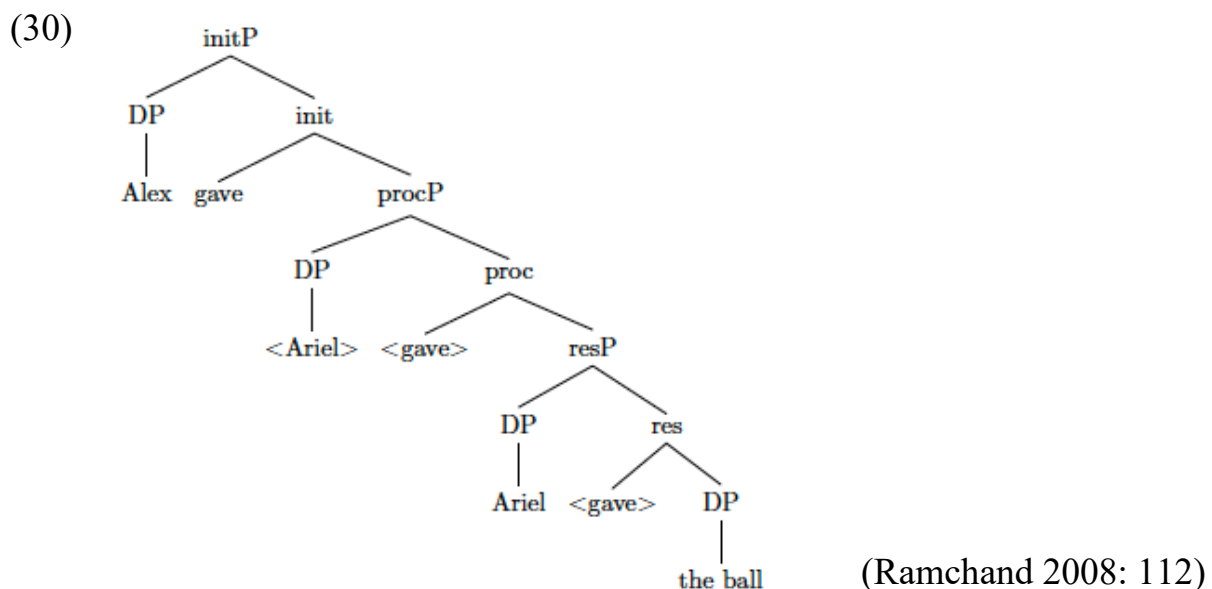
(27) Alex gave the ball to Ariel.

In this example, the verb *gave* still identifies *init* and *proc*. However, in Ramchand's structure *res* is spelled out by the preposition *to*. Ramchand proposes that the lexical entry for *give* has a *res* feature and that the preposition *to* identifies this feature via AGREE, thus yielding the structure in (28).



The semantics that this structure suggests is that *Alex* initiated a process that caused a ball to ‘be at’ *Ariel* with the preposition *to* expressing a change of location (due it identifying both *res* and P). In the case of the double object construction in (29), from Ramchand (2008: 112), Ramchand argues that *give* itself identifies the *res* feature thus yielding the structure in (30).

(29) Alex gave Ariel the ball.



Both structures bear similarity to the structure proposed by Hale & Keyser (2002) in which the verb *give* involves a causative structure in which the external argument causes another argument to have or come into possession of another object. Here, *initP* corresponds to the causative upper V and the spelling out of the entire eventive structure by *gave* can be linked to the head movement from V3

to V1 as proposed in Hale & Keyser. The semantics of the double-object construction in (29) suggests that *Alex* has initiated a process that results in *Ariel* having possession of *the ball*.

In adopting Ramchand's structure one can account for the two issues raised in Section 2.1. First, the issue of multiple DPs appearing in an SVC is resolved because each eventive feature licenses a separate DP participant. Second, the difficulty in reconciling the possibility of both V1 and V2 housing a functional verb can be resolved. Given that the semantics of verbs series indicate a single verbal event, it is reasonable to assume that there are not multiple Vs in the syntax. Under Ramchand's approach, events (e.g., transitives) are complex by definition, involving three featural heads (i.e., *initP*, *procP*, and *resP*). In SVCs, the verbal roots express some substretch of the entire eventive function sequence. This is in contrast to a non-serialising language such as English in which a single verbal root spells out the entire stretch of features. In the following section, we reframe the data in Section 2 in terms of the two verb classes discussed above (i.e., INITIATION-PROCESS and INITIATION-PROCESS-RESULT verbs).

4 Reframing the Kwa data

In Section 3.1.1, we provided a general introduction to the eventive functional sequence proposed by Ramchand (2008, 2015) without relating it to Kwa SVCs. In this section, we tease out the details of Ramchand's structure and how it relates to the data in Section 2. Our overarching claims are: (i) *take* and *give* are manifestations of the two verb classes discussed above and (ii) the Kwa languages, permitting serialization, use each verb root to identify different sub-stretches of the eventive functional sequence. This contrasts with a non-serialising language such as English in which a single verb must identify the entire eventive sequence. In Section 4.1, we address *take*-series and in Section 4.2 we address *give*-series.

4.1 Spelling out take-series

The *take*-series discussed in Section 2 can be classified into three sub-types:

- (i) Object sharing (such as the example in (8b)).
- (ii) Instrumental (such as the examples in (7a) and (7c)).
- (iii) Lative (such as the example in (7b)).

We argue that (i) is a manifestation of the INITIATION-PROCESS verb class where the INITIATOR and UNDERGOER are identified by the same DP and that (ii) and (iii) are manifestations of the INITIATOR-PROCESS-RESULTS verb class. Let us consider

the semantics of sentence in (8a) and the object-sharing *take*-SVC in (8b), both repeated below as (31a) and (31b), respectively.

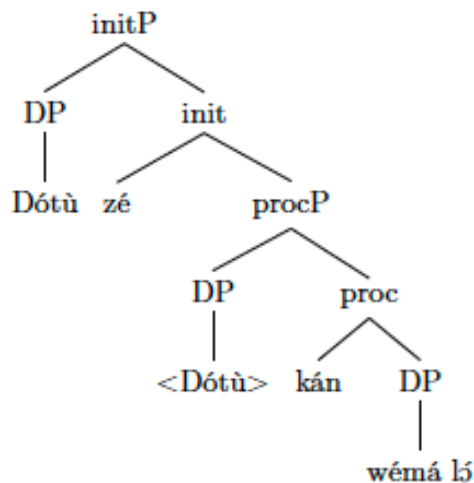
- (31) a. Dótù kàn wémá ló. [Gungbe]
 Dotu write paper DET
 ‘Dote wrote the letter.’
- b. Dótù zé wémá ló kàn.
 Dotu take paper DET write
 ‘Dotu took it upon himself to write the letter.’

In adopting a fine-grained eventive structure, we predict that some languages can use a verbal root to individually identify the *init* feature. The above examples bear out this prediction. Whilst both examples express a single event of writing, the semantics of (31b) is more nuanced (i.e., *Dotu* may not be the originally intended writer of the letter). In the case of (31a), it is ambiguous as to whether *Dotu* took the initiative to write the letter or if he was otherwise coerced. Because the underlying syntax allows for the possibility of individually spelling out the *init* feature, the Kwa languages are able to place emphasis on the initiating subevent by using an SVC.

By individually spelling out *init* with *zé*, the semantics of (31b) implies that *Dotu* took the initiative to put himself into the process of writing of letter. It would be inappropriate to analyze *zé* as introducing an additional event of taking. Instead, *zé* must identify some substretch of the eventive functional sequence. Given that the event of writing is transitive and requires a subject and an object, we can translate this in terms of Ramchand’s structure as requiring an initiating subevent (i.e., *initP*) and a process subevent (i.e., *procP*). We propose that *zé* spells out the *init* feature since it introduces the participant that initiates or causes the main event of writing (i.e., *Dotu*). This leaves the verb *kàn* ‘write’ to spell out the *proc* feature. Since *wémá ló* ‘the letter’ is not a sentient DP, carrying out the action of writing (i.e., it is *Dotu* who is writing), we adopt Ramchand’s analysis that the INITIATOR also identifies UNDERGOER leaving *wémá ló* as a rhematic path thus yielding the structure in (32).⁴

⁴ In Section 3.3, we briefly mentioned two possible approaches for deriving the final structure within the eventive functional sequence (i.e., head movement or nonterminal lexicalization). Readers will notice that the structures given in this section do not necessarily conform to the surface structure given in the glosses. We leave it to future work to tease out the details of the derivations that result in the final surface structure. Although a traditional head movement account is possible, an account using spellout-driven movement (cf. Baunaz et al. 2018) is another possible path that is in line with the nonterminal lexicalization proposed in Ramchand (2015).

(32)



Similar to (21b), the semantics that is implied by this structure is that *Dotu* initiated a writing process that involved a letter. If *wémá lǎ* identified UNDERGOER, then the semantics would be strange (i.e., *Dotu* puts the letter into the process of writing).

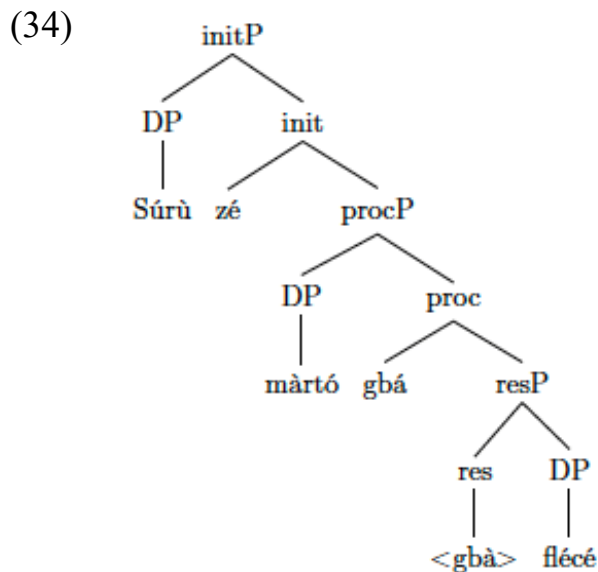
Let us turn to the instrumental SVC in (7a), repeated below as (33), which introduces a third DP participant into the verbal event.

- (33) Súrù zé màrtó gbà flécé lǎ. [Gungbe]
 Suru take hammer break window DET
 ‘Suru broke the window with a hammer (by means of a hammer).’

As evidenced by the presence of three DP participants, we claim that such a SVC is a manifestation of the INITIATOR-PROCESS-RESULT verb class. As such, all three eventive features should be present in the structure. The semantics of (33) also bears out this classification. There is an initiating participant (i.e., *Suru*), a participant involved in the main action (i.e., *màrtó* ‘hammer’), and participants that changes stages (i.e., *flécé* ‘window’).

The difficulty in this case is that (i) two verbs must be used to identify three eventive features, and (ii) there is an additional DP serving as an instrument. If we assume that *zé* is indeed an element in the eventive functional sequence, as opposed to an adpositional element marking an instrument, it must identify the *init* feature much the same as in (31b). Given there are only two elements that can spellout the stretch of features, *proc* must be spelled out in a stretch with one of the other features. If the stretch of features [*proc*, *res*] is spelled out by *gbà* ‘break’, that would suggest that the hammer (i.e., the DP participant project by *proc*) is the UNDERGOER of the breaking event, that is to say it is the ‘breaker’. This is intuitively correct as one DP participants initiates the event, another discharges it, and the last one changes state due to the event. Therefore, we

conclude that in instrumental SVCs, *zé* identifies [*init*] and the lexical verbal *gbà* identifies [*proc, res*] thus yielding the structure in (34).⁵



The semantics that this structure implies is that *Suru* takes the initiative to engage a hammer into a process that results in the breaking of a window. Let us consider how the semantics of this example contrasts with the semantics of (28). Because the Kwa languages permit serialization, they are able to more finely articulate the eventive structure and thus can place emphasis on the individual subevents or participants. This is the case for (33) as the hammer becomes ingrained with the event itself unlike in (28) where the mango is relegated to a rhematic path outside of the main event. Therefore, the Kwa languages can precisely articulate each participant in the verbal event where English can only articulate who initiated the event and what was affected by the event. The means or instrument is therefore relegated to an PP adjunct outside of the eventive structure.⁶

⁵ An alternative case is where the features [*init, proc*] are spelled out by *zé*. The semantics are not borne out in this case as the hammer would then have to be analyzed as the UNDERGOER participant of *zé* implying that it carries out a separate event of taking.

⁶ It is noteworthy that the Kwa languages, like many SVC languages, also involve adpositions which can be used to introduce adjuncts or additional arguments. In the following example, the complex adposition *kpó...kpó* introduces the instrument.

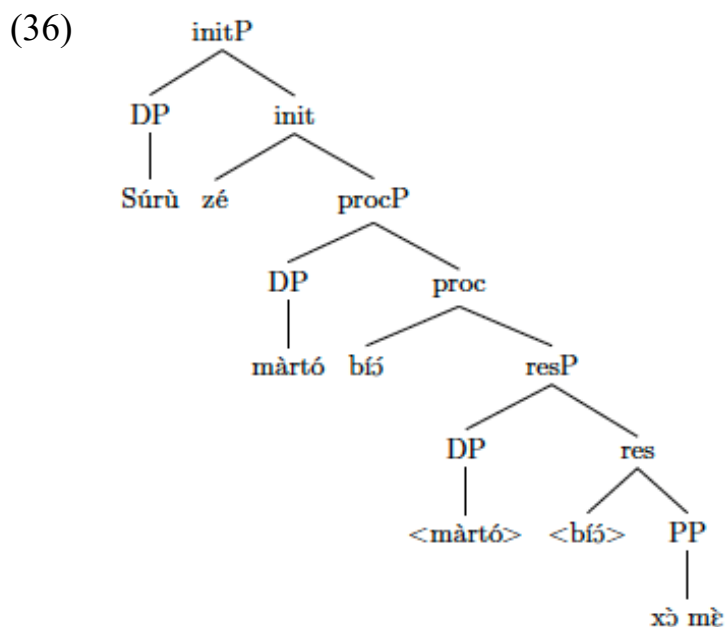
- (i) Súrù bíó xò mè kpó màrtó kpó. [Gungbe]
 Suru enter room INSIDE ADP hammer ADP
 ‘Suru entered the room with a hammer.’

Compared to example (35), this sentence is ambiguous because it could either mean that Suru entered the room with a hammer accidentally, or that he intentionally did so. Example (35), on the other hand, implies he did so intentionally. Accordingly, SVCs and similar constructions involving adpositions do not have the same meaning, as predicted by Ramchand’s theory.

Let us now turn to the lative *take*-SVC in (7b), repeated below as (35).

- (35) Sùrù zé màrtó bíó xò mè. [Gungbe]
 Suru take hammer enter room INSIDE
 ‘Suru took a hammer into the room (entered the room with a hammer).’

As with the previous two examples, the unity of the two verbs in a single event is maintained. In this case, the event involves the entering of a room. Similar to the previous example, there is a resulting state but the difference in this latter case involves a change of location. We therefore argue that (35) is an INITIATOR-PROCESS-RESULT verb in which *zé* identifies [*init*] and *bíó* ‘enter’ identifies [*proc*, *res*] thus yielding the structure in (36).

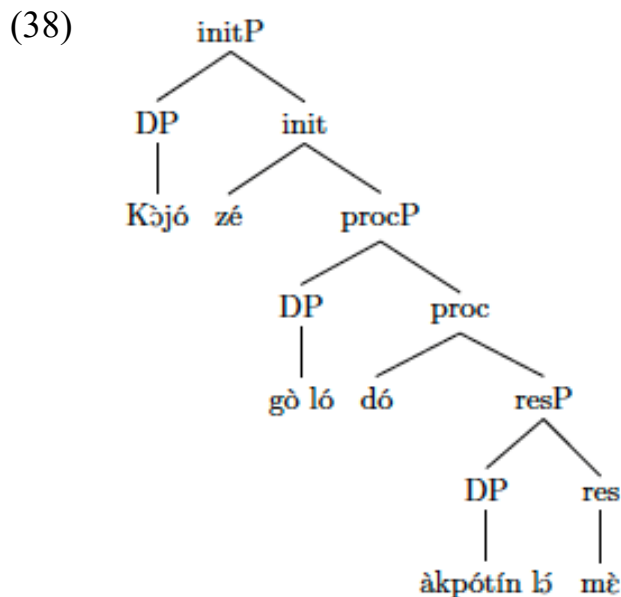


The semantics that is implied by this structure is that *Suru* has taken the initiative to put a hammer in a process whereby it changes location inside another room. At this point, it is worth mentioning Aboh’s (2010) discussion on complex adposition structures of the form P1-DP-P2 often found in the Kwa languages. The example in (37) illustrates an example of this construction.

- (37) Kàjò zé gò ló dó àkpótín ló mè.
 Kojo take bottle DET P1 box DET P2
 ‘Kojo put the bottle inside the box.’ [Gungbe, Aboh, 2010: 225]

Aboh states that P1 expresses source, direction, or goal, and that P2 expresses location and that, moreover, P1 often derives from verbs via SVCs. One question that arises from a complex structure with verbal origins, such as that in (37), is:

Are P1 and P2 truly adpositional elements or are they associated with the eventive functional sequence? Aboh claims that P1 functions as an argument introducer and assigns case to the constituent DP-P2. If we analyze the verb *zé* in (37) as identifying all three eventive features this means that the P1-DP-P2 structure lies outside the verbal event structure. The semantics that are borne out in this case suggest *Kojo* initiates a taking process involving a bottle that results in something unspecified. Since the event in (37) involves a change of location, much the same with (36) and considering that P1 can be analyzed as a having a verbal origin, one possible analysis is that P1 identifies [*proc*] and P2 identifies [*res*] yielding the structure in (38).



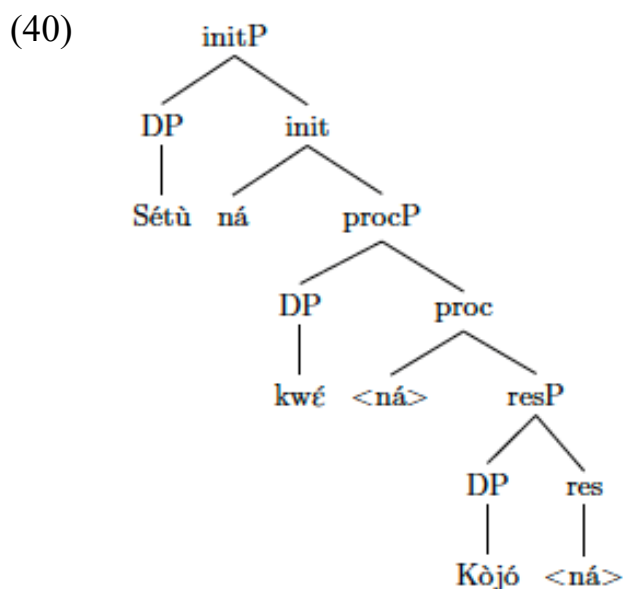
The semantics that this structure suggests is that *Kojo* initiated a process whereby a bottle changes location to be inside of a box. Essentially, this is tantamount to suggesting that adpositions can identify features within the eventive functional sequence. This would account for Aboh's observation that P1 intersects with elements that would be labelled as prepositions or verbs in English. In the following Section 4.2, we turn to *give*-series and expand further on the notion of the intersection of adpositions and verbs within the eventive structure.

4.2 Spelling out *give*-series

As discussed in Section 2.2, *give* is ambiguous as to whether it expresses the donation of an object to someone or whether it introduces a recipient or benefactive DP. Let us consider the clearly lexical instance of *give* in (39a) as compared to the SVC in (39b).

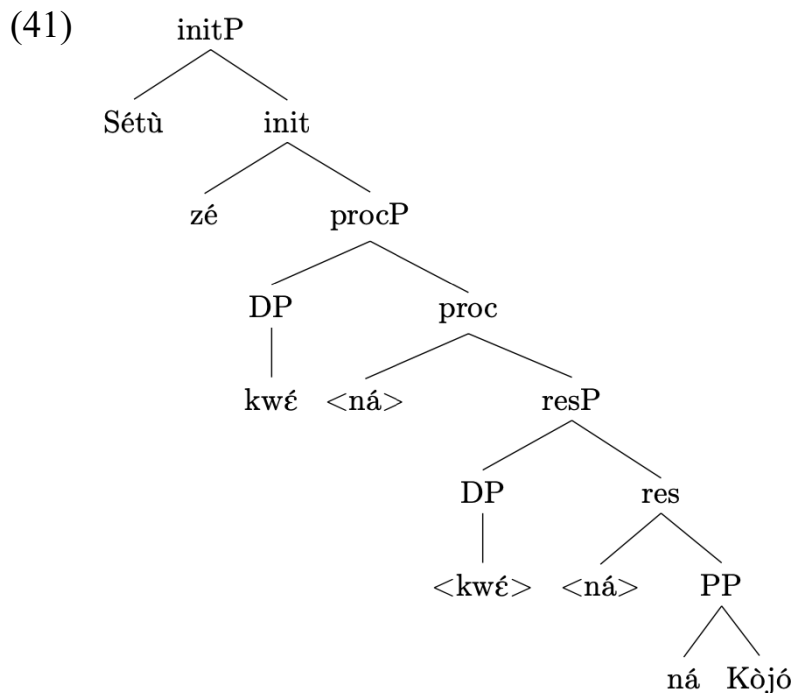
- (39) a. Sétù ná kwé Kòjó. [Gungbe]
 Setu give money Kojo
 ‘Setu gave Kojo money.’
- b. Sétù zé kwé ná Kòjó.
 Setu take money give Kojo
 ‘Setu gave money to Kojo.’

Despite the difference in the order of object and indirect object between (39a) and the English example in (29), it is clear that *Kojo* is the beneficiary of the donation of money. Because there are no other verbal or adpositional elements in (39a), *ná* must identify the entire stretch of eventive features thus yielding the structure in (40).



The identification of *ná* with the entire stretch of features implies the interpretation that *Setu* has initiated a process that results in *Kojo* having possession of money. Moreover, the word order of direct object-indirect object also suggests that *kwé* ‘money’ identifies the UNDERGOER participant and *Kojo* identifies the RESULTEE participant. Given the presence of *zé* in the structure of (39b), we can assume that it identifies [*init*]. Here, one can draw parallels with Hale and Keyser (2002) and their proposal that the verb *give* involves an underlying causative structure that suggests the interpretation ‘cause to have’. This indeed bears out the interpretation that *zé* identifies [*init*] in its capacity as a causative element. This leaves us to determine what stretch of the eventive structure is identified by *ná*. One analysis is that it identifies the remaining eventive features (i.e., [*proc*, *res*]) thus leaving the possibility for a benefactive reading such as with (39). Another analysis (drawing parallels to the structure in

(28)) is that, similarly to the English preposition *to*, *ná* identifies [*res*, *P*] thus yielding the structure in (41).



It is necessary at this point to clarify the structures in (40) and (41) in which there are multiple copies or traces of *ná*. As discussed in Section 3.3.1, there are two interpretations possible here: (i) that of Ramchand and (ii) a more traditional analysis in terms of head movement. In the former approach *ná* identifies all heads via non-terminal lexicalization. In the latter approach, *ná* is base generated in the first merge position and rises in the structure by subsequent internal merges. Again, we adopt Ramchand's terminology, but it is out of the scope of this current investigation to assess the theoretical validity of either approach.

If we draw parallels to the lative *take*-series, the complex adpositional structure discussed in Section 4.1, and *to*-dative constructions in English (cf. (28) above), then what we are dealing with is a change of location structure. The semantics that is implied by the structure in (41) is that *Setu* has initiated a process that caused money to 'be at' *Kojo*. In this case, *kwé* identifies both UNDERGOER and RESULTEE since it is undergoing the action of being given and results in a metaphorical change of location (i.e., in *Kojo*'s possession). Under this interpretation, *Kojo* is the recipient of the money, but not necessarily the beneficiary of the money.

5 Coda

In adopting Ramchand's functional sequence of eventive features, we have been able to address the two research questions posed in the beginning of the paper, to wit:

- (i) What structure make-up underlies SVCs?
- (ii) What possible grammars can arise out of this underlying structure?

The structural complexity and the semantic nuances of *take*- and *give*-series motivate the necessity of a finely articulated structure within V. The examples discussed herein demonstrate how the Kwa languages are able to employ SVCs to encode specific details about the nature of a verbal event that is not as succinctly expressed in a non-serializing language such as English. Given the semantic richness afforded by SVCs and the fact that past literature addressing SVC syntax seem to converge towards the need for some sort of functional layer within V, the adoption of Ramchand's structure to account for SVCs provides the necessary functional structure to account for the existence of SVCs. Ramchand's structure presupposes the existence of both serializing grammars (which use multiple verbal roots to express the eventive functional sequence) and non-serializing grammars (which use a single verbal root to express the entire eventive functional sequence). Moreover, the structure allows for us to account for elements that have been difficult to classify as verbs or adpositions. This suggests that learners utilize the underlying functional sequence to construct a variety of grammars in which a single element can be used both in a purely lexical and a more composite role (such as the case with *take*, *give*, and P1/P2 as discussed in Aboh (2010)). This has implications for the often-described grammaticalization path from serial verb to adposition.

In some Kwa languages, there is evidence that a verb that used to have a lexical usage has lost that usage and only occurs in SVCs in which it introduces an argument. An example cited in Aboh (2009: 17–18) involves the morpheme *de* in Akan. In the grammatical SVC in (42a), this morpheme introduces a comitative argument, even though it cannot be used by itself as a lexical verb as in (42b).

- (42) a. Kofi de Yaw kɔɔ Kumase. [Akan]
 Kofi take Yaw go Kumase
 ‘Kofi took Yaw to Kumase.’
- b. *Kofi de Yaw.
 Kofi took Yaw
 ‘Kofi took Yaw.’

Sporadic pieces of evidence like these found across Kwa have led to the conclusion that there is a steady grammaticalization path from lexical verbs to adpositions. While the data are compatible with such a hypothesis, the analysis is not tenable for all the relevant cases (e.g., in many Kwa languages, one finds SVCs alongside adpositions which are not derived from the SVC verbs). In addition, a grammaticalization scenario does not explain what structural properties specific to SVCs allow learners of Kwa languages (and beyond) to reanalyze *take* or *give* verbs into adpositions or case affixes. We maintain that the patterns observed across Kwa are indicative of structural properties of SVCs in general and *take/give*-SVCs, in particular.

Most Kwa languages do not have historical written sources. One can therefore not use synchronic descriptions in reference grammars as a substitute for diachronic development. We will therefore not interpret the different usages of *take* and *give* found across Kwa SVCs as yardsticks for a tidy unidirectional progression along a grammaticalization path. Instead, we take these different patterns across Kwa as manifestations of possible hypotheses that learners make during acquisition. We postulate that the realm of potential analyses that learners entertain is limited by specific structural properties of SVCs. In terms of this rationale, learners of different Kwa languages living in different communities may rely on different learning hypotheses, even though their productions may look superficially very similar. Accordingly, the purpose of our second research question serves to understand how a certain underlying structure can lead to the grammatical diversity observed throughout the Kwa languages.

On a purely theoretical level, some derivational mechanism such as head movement or a non-trivial spellout theory is necessary as an explanatory device to make a difference between serializing and non-serializing grammars and for the emergence of composite elements. This present investigation of *take*- and *give*-series is, of course, just an initial foray into how speakers of a language utilize the underlying syntax to construct various grammars. We hope that paper can inform future investigations into how a certain underlying syntactic structure can provide the basis for the creation of new grammars.

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Ryan J. S. Kotowski
ACLC, University of Amsterdam
R.J.S.Kotowski@uva.nl

Enoch O. Aboh
ACLC, University of Amsterdam
E.O.Aboh@uva.nl

Jan Don
ACLC, University of Amsterdam
J.Don@uva.nl